

REMARKS

This amendment and related remarks that follow are intended to place the subject application in condition for allowance. Amendments to the claims are presented starting on page 2. Specifically, claim 21 is amended to address a typographical error. Claims 25, 26 and 27 are amended, and new claims 35 and 36 are added, in order to better claim the Applicant's invention. No new matter is introduced as a result of these claim amendments. Finally, withdrawn claims 28 – 34 were cancelled. In view of these amendments and the following reasoning for allowance, the Applicant hereby respectfully requests further examination of the subject application and allowance of claims 1 – 16, 18 – 27, and new claims 35 and 36.

Rejection of Claims 1 – 16 and 18 – 27 Under 35 USC §103(a)

The aforementioned Office Action of September 21, 2005 rejected claims 1 – 16 and 18 – 27 of the subject application under 35 USC §103(a) as being unpatentable over Tillman et al., U.S. Patent No. 6,496,980 (hereinafter Tillman) in view of Chiang et al., U.S. Patent No. 5,828,788 (hereinafter Chiang). The Applicant respectfully disagrees with this assertion for the following reasons.

The Examiner stated that Tillman teaches all the elements of claims 1, 25 and 27 with the exception of "having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy, and wherein requesting a base quality version of the program from a server over the network comprises requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network," which is purportedly taught by Chiang. The Examiner further stated that it would have been obvious to incorporate the Chiang teachings into Tillman to produce the Applicant's claimed invention. The Applicant respectfully disagrees with this contention of obviousness for the following reasons.

In claims 1, 25 and 27 the Applicant claims a computer-implemented process, a

client-server based computer network, and computer-executable instructions in which a client computer's first request for an audio and/or video program is custom tailored to the actual bandwidth of the network available to the client computer. More specifically, **the Applicant claims a process, network and instructions in which the client computer's first request for an audio and/or video program** (termed a "base quality" version of the program) **involves requesting as many layers, starting with the base layer, as can be transmitted without exceeding the available bandwidth of the network.** This is reinforced in paragraphs 9 and 33 of the Applicant's specification.

As acknowledged by the Examiner, Tillman teaches that a client computer's first request for a program results in the server sending only the base layer of data and no more (i.e., Tillman does not teach custom tailoring a client computer's first request for a program, or any subsequent program requests for that matter, to the network bandwidth available).

Chiang teaches a system and methods focused on motion video signal coding and related processing. Furthermore, throughout Chiang, routine reference is made to television (TV) signals, TV applications, TV broadcast transmission and related standards such as MPEG, HDTV, SDTV. More particularly, **the system and methods taught by Chiang are specific to broadcast TV transmission applications.** For example:

"The principles of the invention have particular application in TV coding (HDTV or SDTV) ... and digital terrestrial broadcasting" (refer to column 3, lines 16-19)

"The transmitted signal is received and processed by antenna and input processor 425 at a receiver. Unit 425 typically includes a radio frequency (RF) tuner and intermediate frequency (IF) mixer and amplification stages for down-converting the received input signal to a lower frequency band suitable for further processing." (refer to column 9, lines 5-10)

Given this focus on broadcast TV, it is not surprising that the system and methods taught by Chiang are incompatible with a client-server computing and network environment. In fact, nowhere in Chiang is reference ever made to a client-server computing environment, network environment, client or server systems, or related

computer processes or computer executable instructions. Furthermore, nowhere in Chiang is reference ever made to a user using the environment or system, or requesting program information from the environment or system, or to the computer processes or instructions required to support the user's interaction with the environment or system.

More particularly, **Chiang teaches a two layer video signal encoding and decoding strategy which is based on the bandwidth available in the encoding system** (refer to column 4, lines 45-50 and lines 65-67, and column 5, lines 16-19), **not the available bandwidth of the transmission channel or network as claimed by the Applicant**. Chiang further teaches adjusting the resolution of the video signal being broadcast by down-sampling the video input data stream as part of the encoding process before transmission, and then, decoding the corresponding, down-sampled base layer data stream upon reception at a receiver to produce an SDTV decoded output (refer to column 5, lines 3-6). Finally, **Chiang teaches that a higher resolution video signal (HDTV decoded output) may be produced at a receiver by up-sampling (over-sampling) the decoded SDTV output, and that this is advantageous because scarce bandwidth in the encoding system is more efficiently used when it is allocated to encode a lower resolution, single layer bit-stream than when it is used to encode either two different layers or a single, high resolution layer** (refer to column 5, lines 6-13).

Thus, **neither Tillman nor Chiang, nor the combination of Tillman and Chiang, teach the Applicant's claimed process, network and instructions in which a client computer's first request for an audio and/or video program involves requesting as many layers, starting with the base layer, as can be transmitted without exceeding the available bandwidth of the network.**

Claims 2 – 16 and 18 – 24 are dependent on claim 1, and claim 26 is dependent on claim 25. Hence, the argument presented above for claims 1, 25 and 27 also applies to claims 2 – 16, 18 – 24 and 26. However, with further regard to claims 3 – 5 and 26, the Examiner stated that Tillman teaches the Applicant's claimed process and network for rendering the base quality version of the program as the requested data is received, presenting it to the user, determining if the user directs that the presentation be terminated,

terminating the presentation of the base quality version of the program, and terminating the incoming data stream associated with the base quality version of the program, or stopping the rendering of the base quality version of the program while continuing to receive and cache the incoming data stream associated with the requested base quality version of the program. The Applicant respectfully disagrees with this assertion. In the reference cited by the Examiner (column 10, line 57 – column 11, line 15) **Tillman teaches that controls may be provided to terminate the transmission and display of an *enhancement* layer associated with a user's *replay* request** subsequent to the prior transmission and display of a "normal" (i.e., base layer) video segment. **Tillman does not teach the termination of the transmission and display of a base layer which is associated with the user's *first request*.** In fact, nowhere in Tillman is reference made to what happens if a user directs to terminate the transmission and/or display of a base layer video. Furthermore, **Tillman does not teach the termination of the rendering of a base layer while continuing to receive and cache the incoming data stream associated with the requested base layer.** **Chiang also teaches neither** the termination of the transmission and display of a base layer, nor the termination of the rendering of a base layer while continuing to receive and cache the incoming data stream associated with the requested base layer. Therefore, the combination of Tillman and Chiang teaches neither of these things.

In order to deem the Applicant's claims unpatentable under 35 USC §103(a), a *prima facie* case showing obviousness must be made. To make a *prima facie* case showing obviousness, *all* of the elements of the recited claims must be considered, especially when they are missing from the prior art. If a claimed element is *not* taught in the prior art and has advantages not appreciated by the prior art, then no *prima facie* case of obviousness exists. The Federal Circuit court has stated that it was an error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein (*In Re Fine*, 837 F.2d 107, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Based on the arguments presented above, it is the Applicant's position that neither Tillman nor Chiang, nor the combination of Tillman and Chiang, teach the Applicant's claimed process in which the client computer's first request for an audio

and/or video program involves requesting as many layers, starting with the base layer, as can be transmitted without exceeding the available bandwidth of the network. In addition, it is also the Applicant's position that neither Tillman nor Chiang, nor the combination of Tillman and Chiang, teach the applicant's claimed process and network for terminating the transmission and display of a base layer, or terminating the rendering of a base layer while continuing to receive and cache the incoming data stream associated with the requested base layer. Accordingly, no *prima facie* case of obviousness has been established in accordance with the holding of *In Re Fine*. This lack of *prima facie* showing of obviousness means that rejected claims 1 – 16 and 18 – 27 are patentable under 35 USC 103(a) over Tillman in view of Chiang. Accordingly, it is respectfully requested that these claims be reconsidered based on the following non-obvious claim language:

As exemplified in claim 1:

“requesting a base quality version of the program from a server over the network, wherein the base quality version of the program comprises layer data of a layered unicast having hierarchically related layers in that the lowest level layer is a base layer and each subsequently higher level layer adds enhancing information for enhancing the quality of the program that can be rendered from the layers preceding it in the hierarchy, and wherein requesting a base quality version of the program from a server over the network comprises requesting as many layers, in the order of their position in the hierarchy starting with the base layer, as can be transmitted from the server to the client without exceeding the available bandwidth of the network;”

As exemplified in claim 3:

“determining if the user directs that the presentation of the base quality version of the program be terminated;

terminating the presentation of the base quality version of the program to the user.”

As exemplified in claim 4:

“The process of Claim 3, wherein the process action of terminating the presentation comprises the action of terminating the incoming data stream associated with the requested base quality version of the program.”

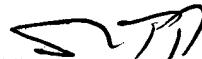
As exemplified in claim 5:

"The process of Claim 3, wherein the process action of terminating the presentation comprises the actions of stopping the rendering of the base quality version of the program, while continuing to receive and cache the incoming data stream associated with the requested base quality version of the program."

Summary

In view of the above, it is respectfully submitted that claims 1 – 16 and 18 – 27 are in immediate condition for allowance as they are not obvious over the prior art cited by the Examiner. Accordingly, reconsideration of the rejection of claims 1 – 16 and 18 – 27 is respectfully requested and allowance of all claims at an early date is courteously solicited. In addition, new claims 35 and 36 are presented. Examination and allowance of these new claims is also respectfully requested.

Respectfully submitted,



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